UNITED STATES PATENT AND TRADEMARK OFFICE

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10/529,620	03/30/2005	Hiroyuki Yurugi	MTS-3512US	1959

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/529,620	YURUGI ET AL.
	Examiner	Art Unit	
	WEI-PO KAO	2464	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _20 August 2010_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1,3,4,6,8-13 and 15-17_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1,3,4,6,8-13 and 15-17_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendments

1.   The examiner has acknowledged the amendment made to the claims.

Response to Arguments

2.   Applicant's arguments with respect to claims 1, 4, 6, 8-13 and 15-17 have been

considered but are moot in view of the new ground(s) of rejection.

Claim Rejection - 35 USC § 103

3.   This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.

2.   Ascertaining the differences between the prior art and the claims at issue.

3.   Resolving the level of ordinary skill in the pertinent art.

4.   Considering objective evidence present in the application indicating obviousness or

nonobviousness.

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as

set forth in section 102 of this title, if the differences between the subject matter sought to be

patented and the prior art are such that the subject matter as a whole would have been obvious at

the time the invention was made to a person having ordinary skill in the art to which said subject

matter pertains. Patentability shall not be negatived by the manner in which the invention was

made.

6.   Claims 1, 4, 6, 8, 9, 10, 11, 12, 13, 16 and 17 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Moriyama et al, U.S. Publication No. 2004/0198430 (hereinafter

Moriyama) in view of Dorenbosch et al, U.S. Publication No. 2004/0028009 (hereinafter

Dorenbosch).

Regarding Claim 1, Moriyama teaches that **A wireless communication system** (see Abstract,

Figure 2, [0002] [0011-0013] [0071]), **comprising: a first communication unit including: a**

first wireless communication unit (see Figure 3, [0072-0073] e.g. the processing apparatus) **for**

performing wireless data communication (see Figure 3 Element 16 and 30, [0076-0077] i.e.

the wireless communication device 16 transmits data over the wireless connection path 30)**, a**

first wired communication unit for performing wired data communication (see Figure 3

Elements 15 and 20, [0075] [0077] i.e. the wired communication device 15 transmit data over the

wired connection path 20) **and a first change-over switch for switching between wireless data**

communication using said first wireless communication unit and wired data

communication using said first wired communication unit (see Figures 6, 7 and 9, [0074]

[0079] [0084] [0086] [0093] i.e. as indicated by the paragraphs [0074] and [0079] the processing

device 10 may include a detachment detector to determine whether a wired connection is still on

and invokes the change-over mean/procedures as shown in figures 6, 7 and 9 to shift to the

wireless connection; such switch may be implement in software, which functions just like the

change-over procedures)**; and a second communication unit** (see Figures 4 and 5, [0078]

[0080] e.g. the cradle and/or the display device) **including: a second wireless communication**

unit for performing wireless data communication with said first wireless unit (see Figure 5

Elements 30 and 53, [0081] i.e. the wireless communication device 53 receives data from the wireless communication device 16 in the processing apparatus over the wireless connecting path 30), **a second wired communication unit for performing wired data communication with said first wired communication unit** (see Figure 5 Elements 20 and 52, [0081] i.e. the wired communication device 52 receives data from the wired communication device 15 in the processing apparatus over the wired connection path 20), **and a second change-over switch for switching between wireless data communication using said second wireless communication unit and wired data communication using said second wired communication unit** (see Figures 13, 14 and 15, [0074] [0082] [0105] [0106] [0109] i.e. as indicated by the paragraphs [0074] and [0082] the detachment detector in the display device 50 determines whether a wired connection is still on and invokes the change-over mean/procedures as shown in figures 13, 14 and 15 to shift to the wireless connection; such switch may be implement in software, which functions just like the change-over procedures), **wherein said first communication unit further includes: a first wired connection detecting section for detecting whether or not a wired connection for said wired data communication exists between said first wired communication unit and said second wired communication unit** (see Figure 4 Element 42, [0079] i.e. as indicated by the paragraph [0079], the detachment detector detects whether the display device is connected to the processing device or in another word it detects whether a wired connection between the two devices exists); **an application for detecting a wireless connection** (see Figures 6, 7 and 9, [0074] [0079] [0084] [0086] [0093] i.e. as indicated by the paragraphs [0074] and [0079] the processing device 10 may include a detachment detector to determine whether a wired connection is still on and invokes the change-over mean/procedures

as shown in figures 6, 7 and 9 to shift to the wireless connection); **wherein said first wired communication unit and said second wired communication unit communicate using said wired data communication after said first change-over switch and said second change-over switch have been switched to said wired data communication** (see Figures 6 and 13 i.e. the figures suggest that either side has to switch to wired connection mode for it to communicate in the wired communication); **and wherein said first wireless communication unit and said second wireless communication unit communicate using said wireless data communication after said first change-over switch and said second change-over switch have been switched to said wireless data communication** (see Figures 6 and 13 i.e. the figures suggest that either side has to switch to wireless connection mode for it to communicate in the wireless communication). However, Moriyama does not teach that **a connection control section which: 1) responsive to said first wired connection detecting section detecting that said wired connection between said wired communication unit and said second wired communication unit exists, uses said wireless data communication to signal said second change-over switch to switch from a) said wireless data communication using said second wireless communication unit to b) said wired data communication using said second wired communication unit, and 2) responsive to said application detecting that said wireless connection between said first wireless communication unit and said second wireless communication unit exists, uses said wired data communication to signal said second change-over switch to switch from a) said wired data communication using said second wired communication unit to b) said wireless data communication using said second wireless communication unit.** Dorenbosch from the same field of endeavor teach that **a**

connection control section which: 1) responsive to said first wired connection detecting section detecting that said wired connection between said wired communication unit and said second wired communication unit exists, uses said wireless data communication to signal said second change-over switch to switch from a) said wireless data communication using said second wireless communication unit to b) said wired data communication using said second wired communication unit (see Abstract, Figures 1, 2 and 6, Paragraphs [0030-0034] [0042-0044] [0047-0048] e.g. figures 2 and 6, paragraphs [0034] and [0048]), **and 2) responsive to said application detecting that said wireless connection between said first wireless communication unit and said second wireless communication unit exists, uses said wired data communication to signal said second change-over switch to switch from a) said wired data communication using said second wired communication unit to b) said wireless data communication using said second wireless communication unit** (see paragraphs [0035] and [0048]). At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the switching mechanism (applying the concept of choosing a "better" connection to switch to) as disclosed by Dorenbosch with Moriyama. The motivation would have been that it is desired to provide a better connection between two communication devices to ensure the integrity of time critical traffic (see Dorenbosch, paragraphs [0017]).

Regarding Claim 4, Moriyama teaches that **A wireless communication unit** (see Abstract, Figure 2, [0002] [0011-0013] [0071]), **comprising: a first communication unit including: a first wireless communication unit** (see Figure 3, [0072-0073] e.g. the processing apparatus) **for performing wireless data communication** (see Figure 3 Element 16 and 30, [0076-0077] i.e.

the wireless communication device 16 transmits data over the wireless connection path 30)**, a**

first wired communication unit for performing wired data communication (see Figure 3

Elements 15 and 20, [0075] [0077] i.e. the wired communication device 15 transmit data over the

wired connection path 20) **and a first change-over switch for switching between wireless data**

communication using said first wireless communication unit and wired data

communication using said first wired communication unit (see Figures 6, 7 and 9, [0074]

[0079] [0084] [0086] [0093] i.e. as indicated by the paragraphs [0074] and [0079] the processing

device 10 may include a detachment detector to determine whether a wired connection is still on

and invokes the change-over mean/procedures as shown in figures 6, 7 and 9 to shift to the

wireless connection; such switch may be implement in software, which functions just like the

change-over procedures)**; a first wired connection detecting section for detecting whether or**

not a wired connection for said wired data communication exists between said first wired

communication unit and a second wired communication unit (see Figure 4 Element 42,

[0079] i.e. as indicated by the paragraph [0079], the detachment detector detects whether the

display device is connected to the processing device or in another word it detects whether a

wired connection between the two devices exists)**; an application for detecting a wireless**

connection (see Figures 6, 7 and 9, [0074] [0079] [0084] [0086] [0093] i.e. as indicated by the

paragraphs [0074] and [0079] the processing device 10 may include a detachment detector to

determine whether a wired connection is still on and invokes the change-over mean/procedures

as shown in figures 6, 7 and 9 to shift to the wireless connection)**; wherein said first wired**

communication unit and said second wired communication unit communicate using said

wired data communication after said first change-over switch and said second change-over

switch have been switched to said wired data communication (see Figures 6 and 13 i.e. the figures suggest that either side has to switch to wired connection mode for it to communicate in the wired communication); **and wherein said first wireless communication unit and said second wireless communication unit communicate using said wireless data communication after said first change-over switch and said second change-over switch have been switched to said wireless data communication** (see Figures 6 and 13 i.e. the figures suggest that either side has to switch to wireless connection mode for it to communicate in the wireless communication). However, Moriyama does not teach that **a connection control section which: 1) responsive to said first wired connection detecting section detecting that said wired connection between said wired communication unit and said second wired communication unit exists, uses said wireless data communication to signal said second change-over switch to switch from a) said wireless data communication using said second wireless communication unit to b) said wired data communication using said second wired communication unit, and 2) responsive to said application detecting that said wireless connection between said first wireless communication unit and said second wireless communication unit exists, uses said wired data communication to signal said second change-over switch to switch from a) said wired data communication using said second wired communication unit to b) said wireless data communication using said second wireless communication unit.** Dorenbosch from the same field of endeavor teach that **a connection control section which: 1) responsive to said first wired connection detecting section detecting that said wired connection between said wired communication unit and said second wired communication unit exists, uses said wireless data communication to**

signal said second change-over switch to switch from a) said wireless data communication using said second wireless communication unit to b) said wired data communication using said second wired communication unit (see Abstract, Figures 1, 2 and 6, Paragraphs [0030-0034] [0042-0044] [0047-0048] e.g. figures 2 and 6, paragraphs [0034] and [0048]), **and 2) responsive to said application detecting that said wireless connection between said first wireless communication unit and said second wireless communication unit exists, uses said wired data communication to signal said second change-over switch to switch from a) said wired data communication using said second wired communication unit to b) said wireless data communication using said second wireless communication unit** (see paragraphs [0035] and [0048]). At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the switching mechanism (applying the concept of choosing a "better" connection to switch to) as disclosed by Dorenbosch with Moriyama. The motivation would have been that it is desired to provide a better connection between two communication devices to ensure the integrity of time critical traffic (see Dorenbosch, paragraphs [0017]).

Regarding Claim 6, Moriyama teaches that **A wireless communication unit** (see Abstract, Figure 2, [0002] [0011-0013] [0071]), **comprising: a second communication unit** (see Figures 4 and 5, [0078] [0080] e.g. the cradle and/or the display device) **including: a second wireless communication unit for performing wireless data communication with said first wireless unit** (see Figure 5 Elements 30 and 53, [0081] i.e. the wireless communication device 53 receives data from the wireless communication device 16 in the processing apparatus over the wireless connecting path 30), **a second wired communication unit for performing wired data**

communication with said first wired communication unit (see Figure 5 Elements 20 and 52,
[0081] i.e. the wired communication device 52 receives data from the wired communication
device 15 in the processing apparatus over the wired connection path 20)**, and a second change-
over switch for switching between wireless data communication using said second wireless
communication unit and wired data communication using said second wired
communication unit** (see Figures 13, 14 and 15, [0074] [0082] [0105] [0106] [0109] i.e. as
indicated by the paragraphs [0074] and [0082] the detachment detector in the display device 50
determines whether a wired connection is still on and invokes the change-over mean/procedures
as shown in figures 13, 14 and 15 to shift to the wireless connection; such switch may be
implement in software, which functions just like the change-over procedures)**, a first wired
connection detecting section for detecting whether or not a wired connection for said wired
data communication exists between a first wired communication unit and said second
wired communication unit** (see Figure 4 Element 42, [0079] i.e. as indicated by the paragraph
[0079], the detachment detector detects whether the display device is connected to the processing
device or in another word it detects whether a wired connection between the two devices exists)**;
an application for detecting a wireless connection** (see Figures 6, 7 and 9, [0074] [0079]
[0084] [0086] [0093] i.e. as indicated by the paragraphs [0074] and [0079] the processing device
10 may include a detachment detector to determine whether a wired connection is still on and
invokes the change-over mean/procedures as shown in figures 6, 7 and 9 to shift to the wireless
connection)**; wherein said first wired communication unit and said second wired
communication unit communicate using said wired data communication after said first
change-over switch and said second change-over switch have been switched to said wired**

data communication (see Figures 6 and 13 i.e. the figures suggest that either side has to switch to wired connection mode for it to communicate in the wired communication); **and wherein said first wireless communication unit and said second wireless communication unit communicate using said wireless data communication after said first change-over switch and said second change-over switch have been switched to said wireless data communication** (see Figures 6 and 13 i.e. the figures suggest that either side has to switch to wireless connection mode for it to communicate in the wireless communication). However, Moriyama does not teach that **a connection control section which: 1) responsive to said first wired connection detecting section detecting that said wired connection between said wired communication unit and said second wired communication unit exists, uses said wireless data communication to signal said second change-over switch to switch from a) said wireless data communication using said second wireless communication unit to b) said wired data communication using said second wired communication unit, and 2) responsive to said application detecting that said wireless connection between said first wireless communication unit and said second wireless communication unit exists, uses said wired data communication to signal said second change-over switch to switch from a) said wired data communication using said second wired communication unit to b) said wireless data communication using said second wireless communication unit.** Dorenbosch from the same field of endeavor teach that **a connection control section which: 1) responsive to said first wired connection detecting section detecting that said wired connection between said wired communication unit and said second wired communication unit exists, uses said wireless data communication to signal said second change-over switch to switch from a) said**

wireless data communication using said second wireless communication unit to b) said wired data communication using said second wired communication unit (see Abstract, Figures 1, 2 and 6, Paragraphs [0030-0034] [0042-0044] [0047-0048] e.g. figures 2 and 6, paragraphs [0034] and [0048]), **and 2) responsive to said application detecting that said wireless connection between said first wireless communication unit and said second wireless communication unit exists, uses said wired data communication to signal said second change-over switch to switch from a) said wired data communication using said second wired communication unit to b) said wireless data communication using said second wireless communication unit** (see paragraphs [0035] and [0048]). At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the switching mechanism (applying the concept of choosing a "better" connection to switch to) as disclosed by Dorenbosch with Moriyama. The motivation would have been that it is desired to provide a better connection between two communication devices to ensure the integrity of time critical traffic (see Dorenbosch, paragraphs [0017]).

Regarding Claim 8, it is a method claim corresponding to the system claim 1, and therefore rejected under the same reason set forth in the same section of claim 1 in this paragraph.

Regarding Claim 9, it is a method claim corresponding to the apparatus claim 4, and therefore rejected under the same reason set forth in the same section of claim 4 in this paragraph.

Regarding Claim 10, it is a method claim corresponding to the apparatus claim 6, and therefore rejected under the same reason set forth in the same section of claim 6 in this paragraph.

Regarding Claim 11, it is a computer readable medium claim corresponding to the method claim 8, and therefore rejected under the same reason set forth in the same section of claim 8 in this paragraph.

Regarding Claim 12, it is a computer readable medium claim corresponding to the method claim 9, and therefore rejected under the same reason set forth in the same section of claim 9 in this paragraph.

Regarding Claim 13, it is a computer readable medium claim corresponding to the method claim 10, and therefore rejected under the same reason set forth in the same section of claim 10 in this paragraph.

Regarding Claims 16, the Dorenbosch further teaches that **wherein: said first communication unit is further for signaling said second communication unit through said wired data communication said second communication unit is further fore responding to said signaling from said first communication through said wired data communication with an address corresponding to said second communication unit; and said first communication unit is further for establishing a link between said fist communication unit and said second communication unit based on said address provided by said second communication unit**

(see Paragraphs [0030-0034]). At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the switching mechanism (applying the concept of choosing a "better" connection to switch to) as disclosed by Dorenbosch with Moriyama. The motivation would have been that it is desired to provide a better connection between two communication devices to ensure the integrity of time critical traffic (see Dorenbosch, paragraphs [0017]).

Regarding Claim 17, Moriyama teaches that **wherein said second communication unit further includes: a second wired connection section for detecting whether or not said wired connection for said wired data communication exists between said first wired communication unit and said second wired communication unit** (see Figure 5 Element 58, [0082] i.e. as indicated by the paragraph [0082], the detachment detector detects whether the display device is connected to the processing device or in another word it detects whether a wired connection between the two devices exists); **a further application for detecting said wireless connection** (see Figures 13, 14 and 15, [0074] [0082] [0105] [0106] [0109] i.e. as indicated by the paragraphs [0074] and [0082] the detachment detector in the display device 50 determines whether a wired connection is still on and invokes the change-over mean/procedures as shown in figures 13, 14 and 15 to shift to the wireless connection). However, Moriyama does not teach that **a further control second section which: 1) responsive to said second wired connection detection second detecting that said wired connection between said first wired communication unit and said second wired communication unit exists, uses said wireless data communication to signal said first change-over switch to switch from a) said wireless**

data communication using said first wireless communication unit to b) said wired data communication using said first wired communication unit, and 2) responsive to said further application detecting that said wireless connection between said first wireless communication unit and said second wireless communication unit exists, uses said wired data communication to signal said first change over-switch to switch from a) said wired data communication using said first wired communication unit to b) said wireless data communication using said first wireless communication unit. Dorenbosch from the same field of endeavor teach that a further control second section which: 1) responsive to said second wired connection detection second detecting that said wired connection between said first wired communication unit and said second wired communication unit exists, uses said wireless data communication to signal said first change-over switch to switch from a) said wireless data communication using said first wireless communication unit to b) said wired data communication using said first wired communication unit (see Abstract, Figures 1, 2 and 6, Paragraphs [0030-0034] [0042-0044] [0047-0048] e.g. figures 2 and 6, paragraphs [0034] and [0048]), and 2) responsive to said further application detecting that said wireless connection between said first wireless communication unit and said second wireless communication unit exists, uses said wired data communication to signal said first change over-switch to switch from a) said wired data communication using said first wired communication unit to b) said wireless data communication using said first wireless communication unit (see paragraphs [0035] and [0048]). At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the switching mechanism (applying the concept of choosing a "better" connection to switch to) as disclosed by Dorenbosch

with Moriyama. The motivation would have been that it is desired to provide a better connection between two communication devices to ensure the integrity of time critical traffic (see Dorenbosch, paragraphs [0017]).

7.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moriyama et al, U.S. Publication No. 2004/0198430 (hereinafter Moriyama) in view of Dorenbosch et al, U.S. Publication No. 2004/0028009 (hereinafter Dorenbosch) as applied to claim 1 above, and further in view of Fong, U.S. Publication No. 2005/0249169.

Regarding Claim 3, Moriyama and Dorenbosch teach all the limitations except that **the wireless communication system, wherein the first communication unit further includes a first signal level adjusting unit configured to adjust, when the first wired connection detecting section detects that the wired connection is being performed, a signal level so that the wired data communication is performed using a signal level smaller than the signal level necessary for the wireless data communication.** Fong from the same field of endeavor teach that **the wireless communication system, wherein the first communication unit further includes a first signal level adjusting unit configured to adjust, when the first wired connection detecting section detects that the wired connection is being performed, a signal level so that the wired data communication is performed using a signal level smaller than the signal level necessary for the wireless data communication** (see Abstract, [0040] i.e. a wired communication link is generally more stable than a wireless link, thus for a system, which is

able to select either one for communication and adjust signal strength, it is obvious to adjust

signal strength so that wireless has greater value). At the time of the invention, it would have

been obvious to a person ordinary skill in the art to implement the signal level adjustment

mechanism to a system with communication medium selection mechanism. The rationale would

have been that with signal strength adjustment mechanism, the communication medium selection

mechanism can yield more efficient and optimal medium communication medium for

communication.

8.   Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moriyama et al,

U.S. Publication No. 2004/0198430 (hereinafter Moriyama) in view of Lempio et al, U.S.

Publication No. 2003/0207683 (hereinafter Lempio) and Dorenbosch et al, U.S. Publication No.

2004/0028009 (hereinafter Dorenbosch).

Regarding Claim 15, Moriyama teaches that **A wireless communication unit** (see Abstract,

Figure 2, [0002] [0011-0013] [0071]), **comprising: a first communication unit including: a**

first wireless communication unit (see Figure 3, [0072-0073] e.g. the processing apparatus) **for**

performing wireless data communication (see Figure 3 Element 16 and 30, [0076-0077] i.e.

the wireless communication device 16 transmits data over the wireless connection path 30), **a**

first wired communication unit for performing wired data communication (see Figure 3

Elements 15 and 20, [0075] [0077] i.e. the wired communication device 15 transmit data over the

wired connection path 20) **and a first change-over switch for switching between wireless data**

communication using said first wireless communication unit and wired data communication using said first wired communication unit (see Figures 6, 7 and 9, [0074] [0079] [0084] [0086] [0093] i.e. as indicated by the paragraphs [0074] and [0079] the processing device 10 may include a detachment detector to determine whether a wired connection is still on and invokes the change-over mean/procedures as shown in figures 6, 7 and 9 to shift to the wireless connection; such switch may be implement in software, which functions just like the change-over procedures)**; a first wired connection detecting section for detecting whether or not a wired connection for said wired data communication exists between said first wired communication unit and said second wired communication unit** (see Figure 4 Element 42, [0079] i.e. as indicated by the paragraph [0079], the detachment detector detects whether the display device is connected to the processing device or in another word it detects whether a wired connection between the two devices exists)**; an application for detecting a wireless connection** (see Figures 6, 7 and 9, [0074] [0079] [0084] [0086] [0093] i.e. as indicated by the paragraphs [0074] and [0079] the processing device 10 may include a detachment detector to determine whether a wired connection is still on and invokes the change-over mean/procedures as shown in figures 6, 7 and 9 to shift to the wireless connection)**; wherein said first wired communication unit and said second wired communication unit communicate using said wired data communication after said first change-over switch and said second change-over switch have been switched to said wired data communication** (see Figures 6 and 13 i.e. the figures suggest that either side has to switch to wired connection mode for it to communicate in the wired communication)**; and wherein said first wireless communication unit and said second wireless communication unit communicate using said wireless data communication**

after said first change-over switch and said second change-over switch have been switched to said wireless data communication (see Figures 6 and 13 i.e. the figures suggest that either side has to switch to wireless connection mode for it to communicate in the wireless communication); **wherein, (1) when the first wired connection detecting unit detects the wired connection is being performed, the first change-over unit changes over so that the wired data communication is performed, and using the wired connection detected by the first wired connection detecting unit, gives a change-over instruction to second change-over unit, which is configured to change changes over whether the wireless data communication should be performed using second wireless communication unit configured to perform that performs the wireless data communication with the first wireless communication unit or the wired data communication should be performed using the second wired communication unit, to change over so that the wired data communication is performed** (see Figures 6, 7, 9, 13, 14 and 15, [0074] [0079] [0082] [0084] [0086] [0093] [0105] [0106] [0109] i.e. according to paragraphs [0079] (and [0082]) in Moriyama's disclosure, it states that "… the CPU 11 of the processing apparatus 10 need only periodically exchange information with the display device 50, via the wired data transfer line 21, to determine whether the wired image transfer line 22 is connected …"; in other words, the processing apparatus including the CPU 11, the detector 42, display device control software/connection mode switching process and etc., which acts a first change-over unit to make the shifting, exchanges (meaning sending and receiving) information regarding the connectivity of the wired communication line, between the display device including connector 51, connection mode switching process and etc., which also acts as a second change-over unit). However, Moriyama does not teach that **a connection control section**

which: 1) responsive to said first wired connection detecting section detecting that said wired connection between said wired communication unit and said second wired communication unit exists, uses said wireless data communication to signal said second change-over switch to switch from a) said wireless data communication using said second wireless communication unit to b) said wired data communication using said second wired communication unit, and 2) responsive to said application detecting that said wireless connection between said first wireless communication unit and said second wireless communication unit exists, uses said wired data communication to signal said second change-over switch to switch from a) said wired data communication using said second wired communication unit to b) said wireless data communication using said second wireless communication unit. Dorenbosch from the same field of endeavor teach that **a connection control section which: 1) responsive to said first wired connection detecting section detecting that said wired connection between said wired communication unit and said second wired communication unit exists, uses said wireless data communication to signal said second change-over switch to switch from a) said wireless data communication using said second wireless communication unit to b) said wired data communication using said second wired communication unit** (see Abstract, Figures 1, 2 and 6, Paragraphs [0030-0034] [0042-0044] [0047-0048] e.g. figures 2 and 6, paragraphs [0034] and [0048]), **and 2) responsive to said application detecting that said wireless connection between said first wireless communication unit and said second wireless communication unit exists, uses said wired data communication to signal said second change-over switch to switch from a) said wired data communication using said second wired communication unit to b) said wireless**

data communication using said second wireless communication unit (see paragraphs [0035]

and [0048]). At the time of the invention, it would have been obvious to a person ordinary skill

in the art to implement the switching mechanism (applying the concept of choosing a "better"

connection to switch to) as disclosed by Dorenbosch with Moriyama. The motivation would

have been that it is desired to provide a better connection between two communication devices to

ensure the integrity of time critical traffic (see Dorenbosch, paragraphs [0017]).

Still regarding Claim 15, Moriyama and Dorenbosch teach all the limitations in claim 15 except

that **(2) when third wired connection detecting unit, which is configured to detect whether

or not the wired connection is being performed between the first wired communication unit

and third wired communication unit configured to perform wired data communication

with the first wired communication unit using a wired connection, detects that the wired

connection is being performed, third change over unit, which is configured to change

changes over whether the wireless data communication should be performed using third

wireless communication unit configured to perform the wireless data communication with

the first wireless communication unit or the wired data communication should be

performed using the third wired communication unit, changes over so that the wired data

communication is performed using the third wired communication unit, and using the

detected wired connection, gives a change-over instruction to the first change-over unit, to

change over so that the wired data communication is performed, and the first change-over

unit changes over, based on the change-over instruction given by the third change over

unit, so that the wired data communication is performed.** Lempio from the same field of

endeavor teaches that **(2) when third wired connection detecting unit, which is configured to detect whether or not the wired connection is being performed between the first wired communication unit and third wired communication unit configured to perform wired data communication with the first wired communication unit using a wired connection, detects that the wired connection is being performed, third change over unit, which is configured to change changes over whether the wireless data communication should be performed using third wireless communication unit configured to perform the wireless data communication with the first wireless communication unit or the wired data communication should be performed using the third wired communication unit, changes over so that the wired data communication is performed using the third wired communication unit, and using the detected wired connection, gives a change-over instruction to the first change-over unit, to change over so that the wired data communication is performed, and the first change-over unit changes over, based on the change-over instruction given by the third change over unit, so that the wired data communication is performed** (see Abstract, Figures 1, 3 and 4, [0029-0030] [0032] [0035] i.e. the invention of Lempio suggests that the processing apparatus, which utilize the WLAN technology such as 802.11, is able to connect to more than one display devices). At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the capability of the access point of the Lempio's invention with the processing apparatus of Moriyama to accommodate multiple display devices. The rationale would have been that it is desired to allow the accommodation of multiple display devices to fully utilize the service provided by the processing apparatus.

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Referring to the PTO Form 892, references are cited to show similar method and system of switching between wired and wireless connections.

10.   Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to WEI-PO KAO whose telephone number is (571)270-3128. The examiner can normally be reached on Monday through Friday, 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Supervisory Patent Examiner, Art Unit

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